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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,733	08/21/2003	Nick Sherstyuk	PAT 655-2 US	6200
35273	7590	08/11/2005	EXAMINER	
BEVER, HOFFMAN & HARMS, LLP			WHITMORE, STACY	
1432 CONCANNON BLVD			ART UNIT	
BLDG G			PAPER NUMBER	
LIVERMORE, CA 94550-6006			2825	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/644,733

Applicant(s)

SHERSTYUK ET AL.

Examiner

Stacy A. Whitmore

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/23/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## FINAL ACTION

### Drawings

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

I. The subject matter showing the looping and compiling instructions is not shown.

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6, and 9-14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. Claims 1-6, and 9-14, contain the phrase "the engineering design of variations" and/or the phrase "the test one of the one or more design variables", and the phrases are unclear because it is not clear what an engineering design of variations is and it is not clear what a test one of the design variables is. Clarify.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains; or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I. Claims 6 and 14 includes specific claim language requiring looping instruction and compilation instructions that are not shown or described in the specification.

#### Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, and 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Chatterjee (US Patent 6,625,785).

5. As for claims 1-6, and 9-14, Chatterjee discloses the invention as claimed, including a method, system, and software tool comprising instructions for interactively optimizing an engineering design, comprising assigning baseline design values to a set of design variables, conducting a sensitivity analysis to determine a set of performance factors, wherein the performance factors define an effect on a set of metrics for the engineering design of variations in a selected one of the set of design variables over a range of values while holding the set of design variables except for the selected one at the baseline set of design values, and manually changing one or more of the baseline set of design values based on the set of performance factors to generate an updated set of design values for the set of design variables [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant].

Conducting a simulation of updated design values to determine an output set of values for the set of metrics, and determining whether updated set allows the design to satisfy performance values [col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process].

Manually changing the revised set of design values based on the set of effects if the output does not allow satisfied performance criterion to remain accurate [col. 10-11,

where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters].

If the output values and performance factors are not accurate, then performing on the updated design, assigning baseline values, sensitivity analysis, manually changing one or more baseline values, performing simulation, and evaluating the output [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant; col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters; col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters – The process is iterative and therefore reads on performing steps on the updated design].

Wherein the sensitivity analysis comprises visually presenting the set of performance factors to the designer for review [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant, col. 11, where the design engineers are provided feedback in order to tune the process must include a visual presentation in order for the engineers to be able to make changes].

Applying a structural change to the design [col. 11, tuning the device parameters effects a structural change in the design].

Wherein the sensitivity analysis involves a test one and the simulation on baseline values, generating test results, repeating the steps of selecting the test one, simulations, test results and compiling test results into the set of performance values is done [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant, col. 11, where the design engineers are provided feedback in order to tune the process must include a visual presentation in order for the engineers to be able to make changes, col. 5, test stimulus and results are comprised within the sensitivity analysis].

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore  
Primary Examiner  
Art Unit 2825

A handwritten signature in black ink, appearing to read 'SAW', located below the printed name of the examiner.

SAW

August 6, 2005